

Notice of Allowability

Application No.

10/721,677

Examiner

Charles D. Garber

Applicant(s)

STOCK, BURKHARD

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/25/2003.
2. ☒ The allowed claim(s) is/are 1-6.
3. ☒ The drawings filed on 25 November 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>11/25/2003</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Allowable Subject Matter

Claims 1-6 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding broadest claim 5, Stock et al. (US Patent 5,739,412) teaches A device for measuring breath alcohol, the device comprising: a mouthpiece (title) defining a flow passage for receiving the exhaled respiratory gas volume flow of a person to be measured (items 2, 6, 9 in the figure), the flow passage having a flow restriction (item 11) providing a pressure drop in the flow passage; a pressure sensor (item 13) connected to the mouthpiece upstream of said flow restriction; a breath alcohol sensor (item 16); and a channel connected to said mouthpiece downstream of said flow restriction (channel left of item 14).

Stock, however, does not expressly teach sampling means for providing respiratory gas samples of the respiratory gas volume flow from said channel to said breath alcohol sensor in a time sequence.

Both Stock (US Patent 5,612,896) and Kühn (UK Patent Application GB 2295679A) teach measuring alcohol content in two samples taken from an exhaled breath in a timed sequence. The measurement signals are integrated for each of the samples and the integrated values are compared. Kühn does so to ensure the first measurement is predominantly alveolar in origin and Stock does so to discriminate between ethanol, methanol and isopropanol with accuracy.

The references also do not teach a sample volume of a first respiratory gas sample being at most 40% of a volume of a second respiratory gas sample; an

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evaluation and control unit receiving measured signals of said pressure sensor and actuating said sampling system. Rather, Kühn teaches division of samples only as a function of time beginning at the peak signal value and Stock teaches samples taken as a percent of the alcohol content signal value.

The disclosure explains that by taking and comparing samples as a function of volume one may achieve "a process for measuring breath alcohol with an improved measured signal quality, so that two breath alcohol measurements can be carried out within the maximum time window of a few seconds after the beginning of the exhalation process, which is relevant for practice, and it can be determined whether mouth alcohol distorts the measurement."

Gammenthaler (US Patent 6,167,746) teaches using pressure and temperature to ensure sufficient volume of sample to an alcohol sensor but not as a means of separating two volumes of distinct relative size.

Rhodes et al. (US Patent 5,369,977) teaches using a pressure sensor to ensure sufficient volume in a second sample. However, the first and second samples are from a calibration gas source and a person being measured respectively. Stock (US Patent 6,289,718) teaches a similar invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chow (US Patent 5,048,321) is similar to the Stock '896 patent discussed above.

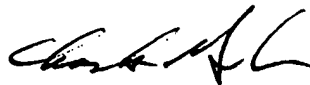
Wright et al. (US Patent 4,297,871) teaches using displacement of magnets to measure volume similar to claims 2 and 6 of the instant invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles D. Garber whose telephone number is (571) 272-2194. The examiner can normally be reached on 6:30 a.m. to 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdg



CHARLES GARBER
PRIMARY EXAMINER